

DOCUMENT RESUME

ED 066 140

HE 003 353

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TITLE The No. 2 Access Problem: Transfer to the Upper Division.
INSTITUTION American Association for Higher Education,
Washington, D.C.; ERIC Clearinghouse on Higher Education, Washington, D.C.
REPORT NO AAHE-4
PUB DATE Jul 72
NOTE 63p.
AVAILABLE FROM Publications Department, American Association for Higher Education, 1 Dupont Circle, Suite 780, Washington, D. C. 20036 (\$2.00)
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Community Colleges; *Higher Education; Junior Colleges; *Junior College Students; *Student Mobility; *Transfer Policy; *Transfer Students

ABSTRACT

There are at least 3 major bases for arguing that transfer admissions is of major importance to higher education. A primary reason is its critical bearing on the organization and structure of higher education. Smooth student transfer from 2- to 4-year institutions is a basic requirement of the hierarchical model of higher education now being developed by many states. A second reason is the large increase in transfer students due to the continuing rise in community college enrollment. A final reason is that it involves problems qualitatively different from freshman admissions. Ten transfer problems are presented: adequate guidance at the community college level; adequate orientation at the senior college; diverse admission procedures; diverse academic standards; the persistent question of credit; access and retention; the need for financial aid; the need for space; and articulation procedures.

(Author/HS)

ED 066140

The No. 2 Access Problem: Transfer to the Upper Division

Warren W. Willingham

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Prepared by the
ERIC Clearinghouse
on Higher Education
The George Washington University
1 Dupont Circle, Suite 630
Washington, D.C. 20036

Published by the
American Association
for Higher Education
1 Dupont Circle, Suite 780
Washington, D.C. 20036

July 1972

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This publication was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

Foreword

This study focuses on articulation problems between 2- and 4-year colleges and universities. The author, Warren Willingham, a Research Psychologist at the College Entrance Examination Board, believes that smooth transfer between institutions is a basic requirement for the hierarchical model of higher education. Four national projects that examine general aspects of the transfer issue are surveyed and ten specific transfer problems, along with the results of a telephone survey of senior institutions in ten key states, are presented.

This is the fourth in a new series of Clearinghouse reports to be published by the American Association for Higher Education (AAHE). In addition to the report series, the Clearinghouse also prepares brief reviews on topical problems in higher education that are distributed by AAHE as *Research Currents*.

**Carl J. Lange, Director
ERIC Clearinghouse on Higher Education
July 1972**

Acknowledgements

A number of people were very helpful in supplying information used in this report. I appreciate the cooperation of those administrators at the institutions that were interviewed by telephone; I am indebted to Elsie Begle and Richard Jonsen for their assistance in carrying out that survey. The literature review was greatly facilitated by Jane Porter's excellent bibliographic work. I am also grateful to Dorothy Knoell, Leland Medsker, and James Wattenbarger for their constructive comments on an earlier draft.

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1 Introduction

In the early 1960s Knoell and Medsker carried out the first and only comprehensive national study of student transfer from 2-year colleges to 4-year institutions. This was a landmark study in several respects. It defined the area, identified important problems, and served as a basis for the development of articulation guidelines to improve the transfer process. However, there has been no systematic review of literature describing research and development in this field in the ensuing years. This report is addressed to that need.

It is surprising to find how little attention the transfer student receives in general discussion of college admissions. While there is no definitive textbook in the admissions profession, there are some standard references and special reports that give a national picture of policies and procedures. The *Handbook of College and University Administration* contains a brief section on transfer admissions but makes only passing reference to students transferring from 2-year colleges (Knowles, 1970). In a detailed description of admissions policies and procedures in the United States, West (1965) mentions transfer admissions but does not focus on any specific topic or suggest that it involves problems different from those of freshman admissions. The report of a national survey of admission officers (Eldridge, 1964) opened with these questions:

What important changes, if any, have taken place in college admissions policies and procedures in the past ten years? Has the phenomenal development of the two-year colleges, for instance, altered the admissions picture appreciably?

Strangely the survey did not include any questions concerning transfer admissions. Even Dyer's (1969) otherwise excellent

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description of college admissions hardly mentions the transfer student, and leaves the impression that transfer problems are largely identical to those of freshman admissions. The annual meetings of American Association of Collegiate Registrars and Admissions Officers (AACRAO) and National Association of College Admissions Counselors (NACAC) typically include two or three sessions concerning transfer admissions, yet these are often information exchanges and not reports of new developments or research on significant transfer problems.

How is one to explain this limited research interest in transfer admissions? It is certainly not because the topic is unimportant. There are at least three bases for arguing that transfer admissions is of major importance to higher education.

A primary reason is its critical bearing on the organization and structure of higher education. Smooth student transfer from 2- to 4-year institutions is a basic requirement of the hierarchical model of higher education now being developed by so many states. McConnell (1962) provided an early description of this model which is now well known. It provides specialized levels of institutions: the university emphasizing research and doctoral training; the state college emphasizing broad college work and professional training; the community college emphasizing community service, a wide variety of career education, and equal access to educational opportunity.

Cross (1970) gives an excellent description of the role of the community college in broadening access to postsecondary education. Her analysis makes clear that many educational needs served by community colleges are not at all connected with transfer. But in the hierarchical model one important function of the community college is to lower the personal, financial, and geographic barriers to baccalaureate programs (see also Ferrin, 1971a and Willingham, 1970). If the transfer admissions process does not work, the model of higher education adopted by many states will not work.

A second reason that transfer admissions represents an important problem is the large increase in transfer students due to the continuing rise in community college enrollment. Ten years ago three freshmen entered senior institutions for every one entering a 2-year college. Now, first-time enrollment in the two types of colleges is almost equal (USOE, 1960; Wade, 1970). Of course, most of these students do not transfer but substantial numbers do. The fact that the Office of Education has not collected annual data on transfers makes it impossible

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to estimate statistics accurately, but recent data indicate that first-time transfers increased 7 percent from 1970 to 1971 while first-time freshmen decreased 2 percent (Peterson, 1972). If the data developed in the Willingham-Findikyan (1969) survey provide a reasonable basis for judging, there should now be approximately one transfer student entering senior institutions for every three first-time freshmen. Furthermore, increases in community college enrollment suggest that the proportion of the transfers coming from community colleges has probably increased since 1966 from four in ten to over five in ten. In short, student movement from 2- to 4-year institutions has now become a major part of the college admissions operation.

A third reason that this transfer movement deserves special study and attention is that it involves problems qualitatively different from freshman admissions. While the application procedures are basically similar, a smooth flow of transfer students requires special conditions that do not occur automatically. There are ten major transfer problems that will be considered in this study:

(1) Principal among these is the need to maintain articulated curricula across the two institutions. There are also unique problems of (2) guidance at the junior college and (3) orientation at the senior college. (4) Admissions procedures and (5) academic standards for transfer students pose special problems of accessibility since these students are typically moving through an open-door college into a more selective, upper-division program. An especially visible problem characterizing transfer admissions is that of (6) properly recognizing previously earned credit. A much less visible problem is that of (7) monitoring the flow of transfer students in a state to determine whether the higher education system is operating as the state intended. Increasing numbers of community college transfers create a special need for (8) financial aid and (9) institutional space beyond normal allotments for freshmen. Finally, (10) special mechanisms must be set up to maintain these various forms of articulation.

The primary purpose of this report is to review these ten specific problems. At the outset, this study was to be exclusively a literature review; however, it soon became apparent that the research literature is limited and most studies have been specialized or tangential to practical questions of immediate interest. It seemed especially desirable to gain a more current, first-hand view of transfer procedures. Consequently,

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the literature review is supplemented by a structured telephone survey of the same 43 senior institutions that Knoell-Medsker included in their study of a decade ago.

A number of areas were discussed with admissions and financial aid officers concerning policies and procedures. The specific questions included in these telephone interviews were selected on the following basis: (1) the review of research literature had revealed little information about an important problem, or to (2) obtain current information about the degree of adherence to the *Guidelines* adopted by the Joint Committee (1966). The survey results are noted in the third chapter of this report where the ten major problems of transfer admissions are considered. Specific answers of the respondents are summarized in Table 2, page 41.

The ten transfer problems listed effectively define the scope of this report. There are other aspects of junior and senior college structure and relations that have an important though indirect bearing on the transfer process. Of special importance are the relationship between the career and transfer curricula (Reynolds, 1969); the formal state plan for higher education (Hurlburt, 1969; Yarrington 1969); characteristics of community college students (Shea, 1966; Cross, 1968, 1971; ACT, 1969; CEEB, 1969; Koos, 1970; ACE, 1971; Brue, Engen and Maxey, 1971; Bushnell and Zagaris, 1972); and the process of student development and decisionmaking (Feldman and Newcomb, 1969; Tillery and Collins, 1972). For additional references on these and related topics, see Willingham et. al. (1972). For early references on transfer admissions see Flaugh et al. (1967).

There are several useful books that provide a sense of history and current context. Good general references include Clark's (1960) classic sociopolitical analysis of the community college, and the well-known texts of Medsker (1960) and Blocker, Plummer, and Richardson (1965). Martorana and Hunter (1966), Gleazer (1968), Cohen and Associates (1971), Medsker and Tillery (1971), and Monroe (1972) have also provided good discussions of the community college. A book by Cross (1971) is especially useful, in that it emphasizes educational problems of "new students," most of whom do not share conventional academic values. These books typically do not give close attention to problems of transfer admissions—Medsker (1960) and Monroe (1972 are exceptions—but they do aid in the understanding of the wellspring of the transfer student.

2 National Projects

Most published work on transfer admissions focuses on the programs of a particular state or on special types of transfer problems. Results of these studies are cited in Chapter 3 when considering the ten transfer problems. In the past decade there have been four projects that are more comprehensive in the sense that they include various aspects of transfer admissions and they apply nationally. These projects will be discussed by drawing heavily upon the publications cited and emphasizing the background of the study and the major conclusions drawn. In Chapter 3 specific results are noted as they relate to these national projects.

Knoell-Medsker Study of Student Performance

As states began to develop junior college systems as a means of broadening educational opportunity, it became obvious that transfer of students from 2- to 4-year institutions would soon become an important educational problem across the nation. A Joint Committee on Junior and Senior Colleges was formed in the late 1950s by the Association of American Colleges, the American Association of Junior Colleges, and the American Association of Collegiate Registrars and Admissions Officers. This group, under the chairmanship of James Wattenbarger, served as an advisory committee to the Knoell-Medsker study (1964a, 1964b, 1965). The project was initiated by the Center for the Study of Higher Education at Berkeley early in 1961 and completed in 1964.

This project concerned the performance and experiences of students transferring from public junior colleges to senior

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institutions and was an effort to improve articulation of instruction, guidance and admission procedures between the two institutional types. The most important objectives were: to analyze the performance of students before and after transfer, to determine what student background characteristics relate to success after transfer; to compare the academic performance of transfer students with that of native students at 4-year institutions; to compare policies, student experiences, and success at different types of senior institutions; to examine the reasons for attrition of transfer students; to determine admission requirements, credit and retention policies and graduation requirements; and to examine existing relationships between junior and senior colleges and how those relationships might be improved.

The study sample included 7,243 junior college students who transferred in 1960 to 43 senior colleges and universities in the following states: California, Florida, Georgia, Illinois, Kansas, Michigan, New York, Pennsylvania, Texas, and Washington. The students represented 345 junior colleges from most states in the nation. The 43 senior institutions represented the major public universities and a sample of the state colleges and private universities in these states. An additional group of 3,349 students who entered the 4-year institutions as freshmen was included for comparison purposes.

Extensive field work extended from early 1961 through spring 1962. Interview data were obtained from administrators and a group of ten students on each campus. College transcripts and student questionnaires provided the other major types of information to form the data base of the study. The authors offer the following conclusions:

- Junior colleges should be expanded because they are making it possible for increasing numbers of high school graduates (including students who would not otherwise be able to do so) to begin work on baccalaureate degrees.
- The contribution of the junior college to higher education is still undervalued and ways should be found to help the public understand both the potential of the junior college and the problems its creation sometimes brings.
- Entirely new programs may be required in the 4-year institutions to accommodate junior college students. Coordinating agencies should review needs and undertake the development of curriculum master plans.

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- The door should be kept open for all capable junior college students to transfer. Students enrolled in occupational programs should not be arbitrarily excluded.
- All or most junior college students could be successful in achieving their degree goals after transfer if they would select a senior institution appropriate to their prior achievement. The proper matching of transfer student and institution at the upper-division level is probably more important than choice of college would be for an entering freshman.
- Some major state universities admit transfer students on the basis of barely satisfactory grades without taking into account their adoption of selective admission standards at the freshman level. There appears to be need for either higher admission standards for transfer students or more effective admissions counseling.
- Transfer students with very similar grades will have quite different degrees of success in different 4-year institutions. Colleges should analyze the characteristics of their graduating classes to find out what kinds of students are successful in their programs.
- The C grade earned in junior college is relatively meaningless as an indicator of a student's likelihood of success in a 4-year institution. The whole matter of grading in junior and senior institutions is a necessary area for articulation at the state level.
- Junior colleges are doing a more effective job in educating their good students rather than the "late bloomers." Weaker students might meet with more success if they followed a three-plus-two program (an extra year in junior college) rather than the two-plus-three program from which many students are now being dropped 1 year after transferring because of poor grades.
- Test scores should not be used to deny admission to transfer students, since there is considerable overlap between the scores of successful and unsuccessful students.
- The average ability level of graduates who were freshmen in the major universities is higher than that of their junior college counterparts. There is considerable overlap, but coordinating agencies should strive to avoid siphoning off all the best students for 4-year institutions.
- A grade-point differential between junior and senior institutions is normally expected. Junior colleges should examine grading differentials with each 4-year college to which they

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send a sizable number of transfer students. A realistic goal is not equal grading standards but a differential that most transfer students can afford.

- Many junior college students develop false expectations about transfer and drop out after finding that they cannot solve their financial problems. A critical examination should be made both of the current philosophy of financial aid and of the nature of existing programs.
- Counseling service needs improvement through better understanding of its potential contribution and through better training of counselors.
- Orientation programs for transfer students generally are inadequate. Senior institutions need to understand and satisfy the special needs of transfer students.
- Transfer students would likely profit from somewhat more difficult courses in their second year in junior college.
- With proper articulation junior college transfer students should not have to complete more units for a degree than corresponding native students.
- Two- and 4-year institutions should work jointly to reduce attrition of transfer students through improved counseling and financial aid.
- In most states present articulation machinery is inadequate to handle the increasing volume of transfer students.

Guidelines of the Joint Committee

These *Guidelines* (Joint Committee, 1966) were developed through a carefully designed model procedure. The Joint Committee on Junior and Senior Colleges developed a set of draft guidelines for use by both types of institutions in facilitating student transfer. The guidelines were revised on the basis of the Knoell-Medsker study. This revision was tested in a series of conferences held in each of the ten states that participated in the research. A third revision of the guidelines was developed as a result of the conferences.

The published *Guidelines* are intended to provide a framework within which junior and senior colleges can work to improve articulation. They were not intended as uniform policy but rather as a set of general principles and suggestions against which policies and procedures could be evaluated locally (e.g., see Oregon State Board, 1968). The major benefit of the guidelines is the succinct statement of desirable policies,

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boiled down to seventeen readable pages and undergirded by the authority of the Joint Committee and the intensive groundwork represented in the state conferences.

In addition to a brief, no-nonsense format, the *Guidelines* are well designed for widespread distribution to the many professionals involved in student transfer—administrators, faculty, admissions and guidance personnel, etc. The *Guidelines* are organized under five headings: Admissions; Evaluation of Transfer Courses; Curriculum Planning; Advising, Counseling, and other Student Personnel Programs; and Articulation Programs. Each of 27 guidelines is introduced with a one-sentence "issue or problem." It is a well-designed document, a basic reference of the transfer literature.

Willingham-Findikyan Survey of Admission Patterns

In 1967 the College Board carried out a survey of transfer admissions in a nationally representative group of 146 senior institutions. A major purpose of the study was to obtain national data on the movement of transfers to answer such questions as: How many transfer students come from 2-year and 4-year colleges? What proportion apply to public versus private colleges? What barriers can be identified? How do college policies affect transfer admissions? In sum, what sort of students are moving from where to where and what determines whether they are admitted?

Data for this survey consisted of a questionnaire completed by each institution and the previous transcripts of a sample of transfer students to each institution. Since the group of colleges was representative of all 4-year colleges in the country, it was possible for the first time to use institutional data to make some detailed estimates of the flow of students from one type of college to another. College data were also used to develop three criteria against which institutional practices could be evaluated. These were: proportion of applicants rejected, proportion of accepted students who did not enroll, and proportion of all new students who were transfers.

The authors found the overall picture suggests the junior college model is working well with respect to transfer admissions. Junior college students were found to enjoy a favorable acceptance rate in 4-year colleges, suffer less credit loss than other transfers, and were well represented in all types of senior

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institutions. The authors conclude that the model can succeed in making higher education available to a much larger proportion of the population without simultaneously generating artificial administrative barriers.

On the other hand, favorable circumstances are not always characteristic of transfer admissions. Conditions vary across the country and some aspects of the transfer picture are "disturbing." The report documented a shortage of financial aid and space for transfer students—both acute in some important sectors of higher education. The authors also found evidence of "too much rigidity and too little effort to treat the special problems of transfers." Their final question was whether the habits and resources of receiving institutions can be accommodated as rapidly as the expanding transfer population will require. That is one important question to which this review is addressed.

Kintzer Survey of Articulation in the 50 States

In fall 1970, Kintzer completed a national pilot survey for a several-year project designed to gather information on the nature of transfer articulation as it is practiced in the various states. The findings from that initial inquiry are reported in a topical paper from the ERIC Clearinghouse for Junior Colleges (Kintzer, 1970) and in a paper presented at an AACRAO annual meeting (Kintzer, 1971).

The earlier report gives a profile of each state based upon information obtained from 80 correspondents. The profiles contain five types of information: background information, including identification of groups involved with articulation; philosophy of articulation; policies and procedures; special problems in the state; and the future outlook. The profiles would have profited from more careful specification of content to the correspondents, since they vary widely in quality and length. Nonetheless, it is the best source of information concerning articulation throughout the country.

In his summary paper Kintzer (1971) identifies several types of articulation and groups states with respect to articulation practices. He concludes that relatively little progress has been made since the Knoell-Medsker report of 1965 and argues strongly for rapid development of statewide plans. Kintzer

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predicts that states will move to formula agreements and cease examining individual junior college courses. This project is still underway, with more intensive studies in selected states.

3 Ten Transfer Problems

Smooth transition of students from one educational level to another requires many forms of articulation. In this chapter ten transfer problems are considered that require special attention. In each instance significant research is cited (often it is a matter of noting the lack of useful work). Results from the telephone survey of senior institutions in ten key states are included.

In order to clarify the term, we might note that "articulation" is commonly used in three slightly different ways. Blocker (1966) uses the term generally to signify the coordination of educational programs. In Kintzer's work (1970, 1971) articulation refers essentially to the process and procedures whereby coordination is achieved. Knoell and Medsker (1965) used the term more broadly to mean the coordination of a variety of programs, practices, and services. In this report the term is modified where necessary to clarify in which sense it is used.

Curriculum Articulation

If a major function of community colleges is to provide the first 2 years of baccalaureate programs, it is self-evident that programs at the two levels must be articulated to avoid lost motion for students. As the population of junior college transfers increases, this reality has become widely accepted (e.g., see Perel and Vairo, 1969; Wilson, 1970).

In their extensive study of student transfers, Knoell and Medsker (1965) gave limited attention to the substance of curriculum articulation due to the "low level of activity" in the institutions and states they studied during the period 1960-64. Kintzer (1970) holds that the situation has improved little since

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that time. This seems an overstatement, but his findings do offer some support for the assertion, even in states with advanced coordinating systems.

For example, his correspondent in New York cites "ambiguity about who sets transfer policies and guidelines." In Michigan, "Faculty philosophies differ on the value of liberal or general education and the course requirements for such—making transfer difficult and at times impossible," and in Illinois, "General education requirements differ in the various universities and among colleges within the universities, in terms of course sequences that fulfill the general education requirements for the degree. This makes it almost impossible for a student to select appropriate courses at the junior college unless he knows to what university and to what college within it he plans to transfer."

But there are already signs of significant activities that should mitigate these problems. Illinois recently adopted the AA degree as satisfactory evidence of completion of general educational requirements (Ogilvie, 1971). New York has recently "regionalized" the State University and instructed campuses within four coordinating areas to develop plans to guarantee transfer opportunities for junior college graduates in their area (SUNY Board of Trustees, 1971).

In their 1965 report Knoell and Medsker argue the case for statewide articulation. If anything, these sentiments have been repeated more strongly by Medsker and Tillery (1971) and Kintzer (1970). There are two major reasons why the inductive case-by-case approach needs to be supplanted by comprehensive but flexible statewide or regional models.

First, the transfer situation is increasingly complicated by larger numbers of students, higher selectivity at the major state universities, emerging multipurpose state colleges, students fanning out to different senior colleges, and variations in requirements and course sequences among receiving institutions. When administrative redirection of transfers occasionally reaches the point of public outcry (*San Francisco Chronicle*, 1969), the need for generalized statewide forms of articulation becomes apparent.

Second, basic dilemmas are created by the dual role of the community college. On the one hand, it serves as the lower division for standard baccalaureate programs; on the other hand, it reaches out to many students who have little interest in those programs. Questions concerning the junior college cur-

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riculum must turn on alternatives that are not easily reconcilable: to train students for transfer or for career; to innovate or to coordinate practices with prescribed programs; to emphasize education or certification. The community college has two masters: its own unique educational commitment and its responsibility to prepare transfer students. The Newman report (1971) describes this divided loyalty as the major problem of the community college in fulfilling its total educational function.

New movements to create more flexible educational patterns (Carnegie Commission, 1971) suggest the possibility of radically different course sequences (Knoell, 1971) and "upside-down" programs (Cyr, 1971) for career students transferring to senior institutions. The social urgency to serve "new (disadvantaged) students" opens entirely new vistas in curriculum development (Knoell, 1966, 1970; Cross, 1971) but applies corresponding pressure on conventional ideas of parallel curricula. The strong commitment of the community colleges to innovate in ways that are relevant to their constituents (Cohen and Associates, 1971) is necessarily blunted by the need to prepare students for traditional upper-division programs. Some leading spokesmen feel that the distinction between "occupational" and transfer" is antiquated (Knoell, 1969). If this be true, articulation is made all the more urgent; yet it remains difficult to accomplish on a piecemeal basis.

In considering statewide articulation, it is useful to distinguish (1) general education programs, (2) major discipline fields, and (3) career fields. Procedures and possibilities for articulation differ among the three. For example, it is a legitimate recognition of institutional autonomy for a senior institution to accept a general education package developed by the community college within specifications as to total units, areas of emphasis, etc. But in discipline fields more detailed agreements are necessary regarding what constitutes upper- versus lower-division content and what the basic introductory course should include. And in career fields 2- to 4-year articulation is far more complex. A complicating factor is the overlap among these three types of articulation: general education includes the major disciplines and career education includes both.

Improved models of statewide articulation are quite necessary and quite hazardous. The dilemma of "two masters" is so real it is often not even broached. For example, Reynolds (1969) describes his book as the first comprehensive treatment of the

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junior college curriculum. He devotes a chapter to factors affecting the curriculum, but includes only one paragraph on the effect of the senior college and its programs on junior colleges.

One obvious problem is that there is no theory of curriculum articulation. Cohen and Associates (1971) even charge that, ". . . the junior college has no curriculum theorist. No one is addressing himself to rational curriculum planning for the institutions as a whole and, indeed, few single institutions are blessed with people who address curriculum in rational terms." Perhaps theory is too strong a word; the need is for general principles by which states and systems can develop guidelines for curriculum articulation that serve the transfer need and also incorporate sufficient flexibility. Previous writers have devoted considerable attention to the *process* of articulation (see pages 37-38), but much less attention to the general question of what substantive outcomes should result from the process. Deductive principles or theory of curriculum articulation should systematically consider such questions as the following:

- What complementary objectives of junior and senior institutions in a system require articulated programs?
- What other objectives of these institutions need to be taken into account to insure they do not inadvertently create articulation problems?
- What specific institutional objectives or programs should be considered parallel?
- In what sense will those programs be parallel? (For example, an AA degree automatically satisfies general education requirements, a specified number of hours in core areas satisfies general education requirements, particular courses are treated as parallel.)
- What constitutes a parallel program or course? What criteria are used to make that judgment and on what assumptions are those criteria based?
- What forms of substantive continuity are required in individual disciplines?
- What forms of instructional continuity are required?
- What forms of curricular and instructional flexibility are permitted and what forms encouraged?

Many institutions and states have worked out articulation agreements regarding specific courses and programs, but a

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deductive articulation approach is perhaps best suited to the so-called core curriculum plan (e.g. University System of Georgia, 1969; Texas College and University System, 1968). This approach can incorporate principles that establish priorities in a prescribed pattern of general education but also maintain institutional integrity and flexibility. Incipient signs of such principles appear in the Georgia plan:

In establishing the Core Curriculum for all units of the University System at the lower division level, two factors were continually considered. The first was the preservation of institutional autonomy to develop a *prescribed* (emphasis added) curriculum, to experiment with innovative teaching techniques, and otherwise to conduct its curricular program as it is so charged to do by the Board of Regents; the second was the latitude necessary to allow the 'undecided-as-to-major' student or the student who changes his major objective, to make his decision throughout the first two years of his college enrollment with the least possible amount of penalty or hardship.

Kintzer (1971) describes similar developments in other states. He feels that such moves represent only a way station to the formula approach found in Florida and recently endorsed in Illinois (Ogilvie, 1971). As Kintzer puts it, "A total acceptance of the associate degree or a course package named by the community college is very likely to develop rapidly in all corners of the nation and become commonplace by the end of the decade." This is consistent with the suggestion of the Carnegie Commission (1971) that students in all colleges be awarded the AA degree after successful completion of the lower division. In this way the AA degree becomes the common currency whereby all students start the upper division with a clean slate.

There are two problems. Mere administrative adoption of the AA degree can sabotage educational continuity in the long run because it creates a clean break that would permit junior and senior colleges to go their separate ways. Present lack of discipline articulation between secondary and higher education belies the adequacy of that solution. Furthermore, training in specialized fields must span the upper and lower division. There is no good substitute for comprehensive and practical principles of curriculum articulation. Adoption of a prescribed core curriculum is a good principle upon which to initiate sound statewide articulation, but it seems important to recognize that it is only a start.

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Adequate Guidance at the Community College

Students are now exercising many options with respect to higher education. These include delayed entry, time out for public service, part-time attendance, intermittent work experience, etc. These and other alternatives reflect a new acceptance that many students wish to make no firm commitments immediately following high school. Students often choose the community college precisely because they are not sure what they want to do. This educational/career uncertainty places special strain on the college to provide personnel services equal to the career guidance needs of its students. In addition, prospective transfers face special problems in coping with admission procedures, credit policies, and financial problems.

In personal interviews admission officers frequently express the view that, compared to high school counselors, junior college guidance personnel are not as inclined to counsel students about the next educational step. Knoell and Medsker (1965) report, "The transfer students gave much less favorable ratings to the counseling and academic advising they received in junior college than they did to various aspects of the instructional program." This is not hard to understand in light of the Raines (1966) report that concluded, "Three-fourths of the junior colleges in the country have not developed adequate student personnel programs." The report outlines a model of student personnel services for the community college, though it gives relatively little attention to the guidance needs of transfer students.

In a recent monograph outlining student personnel practices, O'Banion (1971) does report some interesting though limited transfer guidance activities. Fulton-Montgomery Community College in Johnstown, New York, has developed an Office of Career Planning with transfer guidance as one of its primary functions. There is a special service for students who are not successful after transferring to another institution. These students can return to the office and resume career guidance under conditions where positive relationships have been developed earlier.

The same report describes articulation activities at Black Hawk College in Moline, Illinois. As a counseling aid, this college has developed an articulation sheet for each of the ten senior institutions to which it sends most students (see also Los Angeles Community Colleges, 1971; Washington State University, 1971). The college has developed a program of articulation

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through television. Admission officers from each of the same ten institutions have taped a standard admission program at Black Hawk describing programs and admission requirements at their institutions.

These activities begin to deal with the communication problem emphasized in a recent AACRAO survey (Scherer, 1972) and cited as a serious impairment in junior college guidance (Joint Committee, 1966). It is increasingly recognized that many of the personal problems encountered by transfer students stem from lack of briefing and anticipation at the junior college. Good guidance at that level can do much to ease transition, but adequate guidance is very dependent upon adequate information. The *Guidelines* list six types of critical information that should be routinely available to junior college advisors: (The survey of 43 Knoell-Medsker institutions provided information pertinent to three of these guidelines. The percent adhering to the recommendation is indicated in parentheses.)

- Courses accepted at senior institutions in satisfaction of specific requirements should be determined through regular joint review and reported to appropriate personnel (58 percent yes response).
- Advisors should be kept informed of anticipated curriculum changes through newsletters, conferences, etc.
- Senior colleges should include comprehensive statements of admission requirements (and variations) in the college catalogue.
- Student profiles should be prepared and distributed by senior institutions to assist students in understanding institutional differences and selecting an appropriate college.
- Information on performance of transfers should be regularly reported back to junior colleges (49 percent yes response), and junior colleges should conduct follow-up studies to learn more about the problems students have encountered after transfer (35 percent of senior institutions reported that junior college personnel routinely visited the campus to interview former students).
- Joint meetings of junior and senior college personnel should be held to augment printed information concerning student services available to transfers; e.g., financial assistance, housing, guidance, remedial programs, health services, student activities, etc. (60 percent yes response).

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The follow-up study is an important key to improved guidance for prospective transfers at the community college. Follow-up studies provide practical feedback from students that complements information normally available through personal contact and printed sources. Furthermore, developing a follow-up study requires disciplined involvement of the junior college staff with the question of what aspects of articulation are important. Many junior colleges have carried out such studies in either an interview or questionnaire format, but most have emphasized academic performance (e.g. San Mateo Junior College District, 1968; Greive, 1970). Especially useful reports on follow-up studies have been provided by the American Association of Junior Colleges (O'Connor, 1965) and the ERIC Clearinghouse for Junior Colleges (Park, 1972). These guides suggest different types of studies, how to carry them out, and what sorts of questions might prove useful. Other studies are annotated annually by the Association for Institutional Research (Morishima, 1971).

Adequate Orientation at the Senior College

The transfer student coming from the junior college has special problems in getting oriented to a new and different type of institution. Knoell and Medsker (1965) report general agreement among students that present orientation programs are unsuccessful. The *Guidelines* suggest that transfer orientation should be separate from that of freshmen and should include such topics as graduation requirements, review of student personnel services, procedures for redressing credit grievances, etc. Beyond that, it was suggested that the problem of transfer orientation needs further study.

A study was undertaken recently by the AACRAO Committee on Junior-Senior College Relations (Berry, 1971). It was based largely upon the opinions of a group of transfer students at Washington State University, but their suggestions may have general appeal. The students concluded first that the conventional program consisting of "a lot of boring meetings" was essentially useless. They favored a specially tailored program with emphasis on the following components:

- University personnel should visit the junior colleges at least twice a year to discuss academic problems with prospective students.

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- Senior institutions should do more to orient personnel at community colleges who can assist students prior to transfer.
- The senior institution should sponsor an orientation program at the junior college prior to transfer.
- Campus visits by students in advance of transfer should be encouraged and facilitated—particularly for individual academic conferences.
- Printed materials for transfer students under one cover are especially needed; they can be “nearly as valuable as personal contact.”

Among the institutions surveyed for this report about four in ten had an orientation program that included special materials and procedures for transfer students. Many colleges were dissatisfied with what they were doing but very few had taken innovative steps of the sort outlined above. A promising possibility might be to place the problem largely in the hands of students and see if they are able to devise a program that better meets the need.

Diverse Admission Procedures

The purely procedural aspects of admission can be a barrier to effective transfer. Wilson (1970) argued that “Changes in our admission policies and procedures for transfer students are inevitable and already overdue . . . most senior institutions devote many times as much space to describing their admission policies and procedures for freshmen as they do for transfer students.” Along similar lines Menacker (1970) asserts that junior college transfer students are often second-class citizens in the admission process.

Part of the problem is the fact that there has been so little attention given to describing the diversity in transfer admission practices. On the basis of their survey Willingham and Findikyan (1969) state, “One impression that comes through clearly is a wide variation in institutional attitudes and practices with respect to transfers.” Some institutions are definitely in the “transfer business,” but at many institutions freshman admission takes clear precedence over transfer admissions. For example, clear-cut recruiting of transfer students is still the exception. Their survey indicated that no more than one out of four institutions encourages transfers in its publications, visits junior col-

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leges to talk with prospective students, or prepares special written materials for transfers.

The Willingham-Findikyan study also provides information about several timing practices. Evidently, only about one public senior institution in ten holds transfer applications to see how many freshmen apply. On the other hand some 60 percent create problems for transfers by not notifying them of aid decisions or dormitory space until some time after the applicant has been accepted for admission.

Evidently, a more serious problem is that transfer students typically apply later than freshmen. The *Guidelines* recommend that transfers be admitted by the beginning of their last term in the junior college. Only one institution in three reports this to be the usual case. Most say that transfer applications drift in throughout the spring and even through the summer. As a result transfers are often in a disadvantaged position for financial aid, housing, and other aspects of transition that require preparation or meeting a deadline.

About one institution in four follows what might be called a restrictive-deposit policy; that is, they require a deposit of over \$50 within 2 weeks of notification of acceptance, such deposit being only partly refundable. One public institution in eight has such a restrictive policy. Colleges that do are more likely to reject transfer applicants, yet not have any smaller number of students apply who fail to show up.

A hidden problem of unknown dimensions is the variation in practices with respect to transfer students crossing state lines. This is a relatively small percentage of the flow in most states, but problems are not insignificant in local areas. Especially troublesome are problems of variation in admission standards and higher tuition for out-of-state students. Even in California, where the proportion of out-of-state students is low, there are enough interstate transfers to inspire higher grade requirements for admission (California State Colleges, 1969). And a recent survey indicates that practically all states require nonresident tuition for 1 year after a student moves into a state (Carbone, 1970).

Recently, there have been significant efforts to improve the communication of institutional procedures concerning transfer admissions. Notable among these is the Middle States (1968) survey of senior college policies and procedures that gives a variety of useful information concerning transfer admission practices at each of some 200 member institutions. The report in-

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cludes credit evaluations of specimen transcripts so that readers can gain an impression of institutional credit policies. The Bush Foundation (1972) has taken the lead in fostering better communication between community colleges and private 4-year institutions. Another useful report provides answers to 27 questions concerning transfer policies from all of the senior institutions in North Carolina (North Carolina Board of Higher Education, 1970). All of these examples represent salutary efforts to improve upon inadequate information currently available to students and counselors.

Diverse Academic Standards

Historically, academic standards have been a principal "hang-up" in transfer admissions, but the problems concerning transfers from community colleges have been greatly lessened by articulation efforts. There are good reasons why standards are an endemic problem. Most community colleges are "open door" and actively encourage students who are less able in conventional academic terms (Schoenfeldt, 1966; Claudy, 1971; Tillery and Collins, 1972). Yet, most public senior institutions have become more selective during the 1960s (Ferrin, 1971a).

Academic standards tend to reflect the academic ability of the student body, and this is a fitting reflection of institutional purpose and role. If compared to the university, the community college has a larger share of academically less able students (as most do by intent), there is no way for one grading standard to be appropriate to both types of institutions. Furthermore, there are limits to which the community college can attempt to grade university-parallel students on university standards. Overly rigorous standards for parallel courses can create undesirable cleavage in the community college and diminish the open door function as well as the free movement of students within the college.

Thus, the hierarchical system necessarily generates the potentially touchy problem of different grading standards at different levels. One must examine how transfer students perform at each level and establish admission criteria that reflect institutional purpose and take into account student performance at these levels.

With respect to academic standards, student performance is reflected partly in retention, but especially in the grades

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students earn after transfer. The most important questions concerning the grades earned by transfer students have to do with two types of grade differentials. One is the differential between grades earned at junior and senior institutions; the other is the pattern of differential grades resulting from different grading standards among and within senior institutions.

It is widely acknowledged and amply documented that community college students suffer a drop in grades after transfer. Hills (1965) summarized a number of studies and reported that such a drop occurred in 44 out of 46 sets of institutional data. The Knoell-Medsker study reported this drop to be about three-tenths of a letter grade, averaged across 43 colleges (partially overlapping Hills' data). Some writers have referred to this drop as "transfer shock" and, without adequate rationale or controlled experimental data, have speculated about a variety of possible causes. The simplest and least hazardous assumption is that such grade differentials are due to different grading standards, which are in turn associated with different levels of student ability. Evidence indicates that the same assumption probably explains the fact that native students frequently make somewhat higher grades than transfers (Knoell and Medsker, 1965).

One possible cause of students suffering a drop in grades after transfer is the shock of entering a new, somewhat different academic environment. Evidence for this effect lies in anecdotal reports by students and the fact that the grades of transfer students typically improve after the first term in the senior institution. Hills reports that 34 of 38 sets of data illustrate such recovery. On the other hand the extensive data of Knoell and Medsker indicate that the cumulative upper-division average of transfers is only .12 higher than their first term average after transfer, while the comparable figure for native students is .09. Thus, there seems to be a general tendency for grades of native and transfer students to go up during the junior and senior years. This tendency should certainly be taken into account in admitting and advising transfers, but whether the improvement is properly described as recovery from transfer shock is problematical.

Most of the research on student performance leaves little doubt that most community college students do a creditable job after transferring to the upper division, but there are many—some 20 percent according to Knoell and Medsker (1965)—who never earn satisfactory grades. These authors attribute

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much of this problem to wide differences among institutions regarding academic demands placed upon the student. Darley (1962), among others, has documented the extreme variations in student ability among institutions at both levels. Table 1 illustrates the substantial grade differentials even among categories of institutions. It is also well known that grading standards among departments within most universities vary tremendously. Knoell and Medsker conclude that senior institutions must pay closer attention to whether a transfer applicant is likely to succeed so that the student can be counseled appropriately. The data needed for effective counseling is obtained through studies of student performance at individual institutions.

Table 1. *Grade Point Averages of Native and Transfer Students at Different Types of Institutions (from Knoell and Medsker, 1965)*

Type of Institution	Lower Division		Upper Division	
	Native	Transfer	Native	Transfer
<i>Major State Universities</i>	2.64	2.92	2.88	2.68
<i>Teachers Colleges</i>	2.60	2.62	2.78	2.70
<i>Other State Universities</i>	2.54	2.73	2.80	2.67
<i>Private Universities</i>	2.56	2.74	2.83	2.68
<i>Technical Institutions</i>	2.52	2.98	2.71	2.67

Willingham (1963) illustrated the range of grade differentials that can be faced by a single institution (almost two letter grades) and the difficulty in keeping track of those differentials in admitting and counseling students. There are two ways of improving the estimate of whether the student can succeed.

One method is to determine the grade differential between the receiving institution and each sending community college. This method does improve the prediction of upper-division grades (Willingham, 1963; Bashaw, 1965; Eastman, 1971). It is the simplest, most direct, and most common method of

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evaluating credentials in routine transfer between familiar institutions or within an articulated system. As Roueche (1967) indicates there are a large number of institutional prediction studies. Our survey of senior institutions indicates that about half routinely collect grade differential data and report it to those community colleges that send them a substantial number of students (see Table 2, page 41).

The second common method of improving estimates of whether students are likely to succeed is to supplement available information with an appropriate admission or college-level test. There is little indication that tests are needed or often used in routine admission of transfer students from community colleges, but tests do correct effectively for grading variations among unfamiliar colleges. They are commonly used for this purpose and when applicants have poor college records (Willingham and Findikyan, 1969) or limited college work (Scherer, 1972).

There has been little systematic study of transfer admission criteria set by individual institutions. The Willingham-Findikyan study provided nationally representative information, but it did not always differentiate practices with respect to transfers from 2- and 4-year colleges. The Knoell-Medsker study provides the best discussion of the relationship between student performance and admission policy. That discussion is reflected in practices suggested in the *Guidelines* that constitute the principal expression of admission philosophy for articulated transfer from community college to the upper division.

Briefly, the *Guidelines* recommend that public 4-year institutions should adopt an overall C average as the standard for admission provided all qualified applicants can be accommodated. Efforts should be intensified to counsel students away from senior colleges where they have a poor chance of success, and routine information should be provided about student performance to facilitate such guidance. Furthermore, if space is limited or quotas are set, admission criteria should be clearly stated and priority should go to students with the highest probability of success.

Relatively few institutions (37 percent in Table 2, page 41) report giving priority to the most capable students. This is typically because most institutions practice rolling admissions with transfer students; that is first come, first admitted. This practice is employed because transfer applications are spread over a wide time span. This fact, in turn, makes the first and second

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guidelines listed in Table 2 essentially incompatible. To admit the best qualified students from an excess of applications would require holding applications until most have been received and this obviously prevents early admission decisions, as recommended.

Credit-The Persistent Question

Questions concerning transfer credit attract considerable attention—from students because their education is directly affected; from college personnel because of the myriad decisions involved. The most extensive examination of credit practices is found in the Knoell-Medsker study. They found that more than half of the junior college transfers lose some credit but only 15 percent viewed the loss as serious. "Fewer than 10 percent of the students lost a substantial amount of credit, i.e., the equivalent of one semester or quarter." Considering differences in definition in the two studies, the credit loss of junior college transfers reported by Willingham and Findikyan (1969) seems somewhat larger. They also report quite substantial regional variations in credit loss (24 percent in the Northeast lost one term, but only 5 percent in the West).

Knoell and Medsker cite three primary reasons for credit loss: limitations on the maximum amount of credit transferable (Scherer, 1971, reports that almost all institutions set a limit of about half the total program); poor or failing grades in some junior college courses; and disallowance of credit for remedial work or courses taken to satisfy high school deficiencies. Despite these problems, Knoell and Medsker suggest that "loss of transfer credit is a serious problem for so few students that articulation efforts might well be devoted to other areas, once guidelines are established." While this may represent an appropriate priority, Knoell and Medsker may have underestimated the credit problem, since their original study design excluded students who did not transfer enough credit to achieve upper-division status. In any event, there are a variety of specific credit problems that receive a great deal of attention

- Perhaps the most obvious issue is whether to accept D grades. A few years ago about half of the public 4-year colleges were accepting Ds with minor exceptions (Willingham and Findikyan, 1969). Our survey of 43 institutions indicates that the policy has been liberalized, since 83 percent now report evaluating Ds earned by transfer

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students on the same basis as Ds earned by native students.

- A more subtle issue is the dubious significance and purpose of the whole process of evaluating transfer credit. In a limited sample of institutions Thomas (1971) found that only two in five notify the student regarding transferable credit at the time he is accepted. Institutions that give such advance notice are usually those that admit a large number of transfers and have routinized credit evaluation in the admission office. All of the institutions in this study had made the information available to the student by registration, but a study in Illinois produced a complementary and revealing fact. Throughout the state, some 40 percent of the higher institutions were not able to specify by the middle of the student's first term how many hours the student must take to complete his program (Darnes, 1970a).

This is symptomatic of a condition described by Knoell and Medsker. At many institutions the student is granted a certain amount of credit; however, the real evaluation of its worth in satisfying graduation requirements is made much later. "The question then becomes one of whether the junior college students (and others) are lulled into thinking that all junior college courses advance them toward their degree, when in effect an unknown portion of the transferred credit can or will not be assigned in making degree checks." Consequently, liberal credit policies or articulation agreements to accept the AA degree or core packages in fulfillment of general education requirements will not necessarily prevent lost time. All depends upon what happens after the transfer student enrolls.

- The rapid move to granting credit by examination raises the important question of whether senior institutions are ready to transfer credit awarded by the junior college on the basis of examination. A recent survey indicated that about one-third of some 6600 junior colleges grant credit through the Advanced Placement Program (AP) and College Level Examination Program (CLEP); about one-third also report that senior institutions accept such credits (Scherer, 1972). It appears that limitations in the transfer of credit earned by examination are partially if not mostly limitations in the ties of the junior colleges. The College Board notes that over a thousand 4-year colleges grant credit by examination and the majority of senior institutions are willing to transfer such credit, at least in the case of CLEP. Table 2 (see page 41) indicates 63 percent; the data

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of Ferrin and Rice (1971) indicate 70 percent in a sample of northeastern senior institutions.

- Another important issue created by changing educational patterns is the matter of evaluating credit certified by pass-fail or other nontraditional grades. The most useful information concerning current practice is reported in a recent AACRAO (1971) survey that indicated about one-third of the 2-year institutions are using pass-fail grading, and about one-third of the students at those colleges take more than 10 percent of their work on this basis. Presumably, this indicates roughly one junior college transcript in ten may include a significant number of nontraditional grades. At the senior institutions about one-third accept such grades without question; another third request further information; and the remainder generally have no policy.
- Accreditation is usually regarded as a difficult issue which, in the minds of some (Wilson, 1970), carries too much weight in determining transferable credit. A standard general reference is *Credit Given* (Clary, 1972), an annual AACRAO compilation of credit recognition by the major state universities. Credit is often not accepted from established unaccredited institutions, but the new community college presents a different problem. The frequent practice is to offer credit on various provisional bases.
- The question of credit for vocational courses presents a similar problem. Traditionally, credit has not been offered except in the case of vocational courses having lower division equivalents at the senior institution. Institutions now are taking a more liberal stand (Kintzer, 1971; Scherer, 1972). In a radical departure, the University of West Florida (1970) accepts the entire vocational program and develops, on an individual basis, a baccalaureate program on top of the technological work (see also Cyr, 1971).
- Ordinarily, a student is expected to follow the graduation requirements specified in the catalogue in effect at the time he entered the institution. The transfer student is a special case. If the colleges are properly articulated, he has followed the catalogue for 2 years prior to entry. Scherer (1972) reports the common complaint from junior colleges that senior institutions change their requirements and refuse to recognize "grandfather" rights of students following the earlier catalog. Surprisingly, in almost half the colleges surveyed (see Table 2, page 41), senior institutions themselves reported this occurs as a matter of policy.

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Access/Retention—The Salient Problem

Student transfer represents a flow process within the educational system; that is, a distribution of students from one educational level to another. The resulting discontinuity raises a host of complex questions concerning the social equity and educational effectiveness of the transition process (Willingham et al., 1972). In the case of transfer admissions these questions are all the more pertinent for two reasons. First, the junior college model is partially rationalized as a means of increasing educational opportunity. Second, the model introduces an administrative and educational division not previously present in the baccalaureate program. Consequently, the access/retention characteristics of the junior-senior transfer model are critically important.

Access and retention will be recognized as complementary aspects of the same process; i.e., retention through one educational phase permits access to the next. There are three main transition points: (1) initial access to the community college; (2) transfer to the senior institution; and (3) retention to graduation at the BA level. At each point the major concerns are whether the rate of transition is reasonable and whether the representation of different types of students, particularly minority, is equitable.

The first transition point lies somewhat prior to the primary focus of this review, but there are several references worth noting. Dorothy Knoell (1966, 1970) has undertaken two especially useful studies demonstrating the role of the community college in expanding educational opportunity for urban and minority youth. More general documentation of the accessibility of the community college is found in Medsker and Tillery (1971) and Willingham (1970). Crossland (1971) cites the most striking evidence that the community college has greatly expanded educational opportunity. His figures indicate that half of all black freshmen are in public 2-year institutions, and these colleges have proportionally twice the black enrollment of higher education generally (8 percent versus 4 percent). While there is quite adequate data concerning the first transition point, the other two are a different matter.

An occasional study (e.g., Medsker, 1960; Astin, 1972) suggests that there is heavy attrition from the 2-year colleges, but there is almost no national data that indicate what proportion and what sorts of students transfer from junior to senior institu-

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tions. The U. S. Office of Education does not collect annual data on transfer enrollment that would permit even rough estimates of holding power on a state-by-state basis. Furthermore, very few states have made any effort to carry out student flow studies that would answer the most rudimentary questions concerning student movement from 2- to 4-year colleges.

Recent studies are available from California, Florida, and Illinois, though all three have shortcomings that limit their usefulness (Florida Community Junior College Inter-institutional Research Council, 1969; California State Colleges, 1971; Illinois Council on Articulation, 1971). Data from these studies seem generally consistent with the rough estimate that 15 to 30 percent of those students entering junior college in different states transfer to a senior institution (Newman, 1971). This proportion is low considering that some two-thirds of the freshmen entering 2-year colleges express an intention to transfer.

A study from two Florida colleges produced a curious result (Cooper, 1968). Of those students completing transfer programs, it was found that three in eight did not actually transfer. Furthermore, none of the obvious educational or economic measures differentiated among the graduates who did and did not transfer. Such a finding could have a variety of important implications, but it illustrates the difficulty of interpreting isolated events when there is so little baseline data and general knowledge about the transfer process. It is not clear whether this finding is striking, distressing, or merely a local quirk.

The same general problem exists with respect to information concerning graduation rate of students who have transferred. There are almost no statewide studies of holding power in systems of higher education (including articulated 2- and 4-year colleges). For example, the California Coordinating Council for Higher Education (1969) recently produced an excellent analysis of student performance and state higher education policy, but important unanswered questions in the report revolved around unavailable data concerning student access and retention in the system.

There is, however, a substantial amount of information concerning retention in individual institutions. The Knoell-Medsker study provides the most comprehensive information. They estimate that 75 percent of junior college transfers ultimately graduate from some 4-year institution. This is based upon a large amount of data but may be a bit optimistic due to the fact that the Knoell-Medsker sample was under-

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represented with students who did not achieve upper-division status at time of transfer (either due to leaving the junior college early or losing credit upon transfer). One survey suggests a higher graduation rate in the Northeast (Meskill, 1971), but it was based upon respondents' estimates that may not be accurate.

There is a great deal of institutional variability in the graduation rate of transfers. Some studies indicate high retention (Birnbaum, 1965; Bucci, 1970; Nickens, 1970) while others report below average graduation rates (Lee and Suslow, 1966; Phay and McCary, 1967; Walker, 1969). Such variations dramatize the need for local studies to uncover potential problems.

There are two other major needs concerning access and retention—both pertaining to lack of information. There are dozens of studies of minority freshmen and most large institutions have special programs to recruit minority students; yet there is almost no information on the movement of minority students through the transfer route to the baccalaureate. In surveying 43 institutions we found about two in five with any special activity directed to minority transfer students. There were only a handful of colleges that had developed anything resembling a major program. Many institutions say they do not know how many minority transfers they admit. From the incomplete data it was possible to obtain, it seems safe only to conclude that minority students are almost certainly underrepresented among transfer students as compared with the proportion of minority freshmen in 2-year colleges.

A second problem is the fact that reverse transfer of students from 4- to 2-year colleges is almost completely ignored, yet recent data from Illinois indicate more students transfer *into* than out of the 2-year colleges in that state (Illinois Council on Articulation, 1971). This unexpected and unplanned student flow has wide ramifications with respect to articulation, but it is impossible to know what the implications are without more information about who these students are and why they transfer from 4- to 2-year colleges. Evidently, only a third are in academic difficulty. But whatever the reasons, it seems clear that the respective institutions must pay more attention to the situation if the students are to be served effectively.

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The Need for Financial Aid

One of the most serious problems in transfer articulation is the shortage of student aid. Gleazer (1966) described the situation quite well.

Very often (students) enter the junior college in the first place because the publicly-supported institutions are close to home and the tuition is either low or non-existent. Also, a large percentage of the students work while they attend the junior college. When they go away to a four-year college, they find that the costs are more than they have estimated and that state and institutional financial aid programs are not organized with the best interests and needs of the junior college student in mind. Very few four-year colleges have earmarked scholarships or made special financial provisions for transfer students.

In 1965 Haven and Smith's data indicated that the transfer student was not receiving his share of the financial aid disbursed in the senior institutions. But the importance of the financial problem became widely recognized when Knoell and Medsker (1965) described the close relationship between financial need of transfer students and their academic performance at the senior institution. In short, the student needs money. If he works to earn it, his grades suffer; if he attends to his studies, he runs out of funds. In either event, dropout becomes likely, as the Knoell-Medsker data indicate. This is a more acute form of the financial problem already familiar to the transfer student. Even though the community college freshman has less financial resources than freshmen in other types of institutions, Ferrin's data (1971b) from 153 southwestern colleges showed that the community college student received the least aid in relation to college costs.

Willingham and Findikyan's (1969) national survey indicated that a larger number of students were being aided as compared to the earlier Haven and Smith (1965) data, but the gap between percent of transfer students aided and percent of freshmen aided had actually widened. And at the major universities receiving most transfer students, only one transfer in ten was receiving aid. It has become increasingly apparent that shortage of financial aid for transfer students is a major roadblock in effective implementation of state master plans intended to improve access of poor students to higher education.

This situation has been described by various spokesmen (e.g., see Cosand, 1970). One significant innovation is the College

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Board's Upper Division Scholarship Program initiated and funded by the Ford Foundation. This program provides one million dollars in scholarships to some one thousand students transferring from community colleges to 4-year institutions each year. Scholarships are awarded to minority students (Black Americans, Mexican Americans, Puerto Ricans, and American Indians) selected by their community college (*College Board News*, 1972).

Another significant activity is the innovative financial aid program of the Bush Foundation (1972). Its Opportunity Grants Program will assist roughly one thousand Minnesota junior college graduates to attend private 4-year colleges in that state. Thus, the Foundation seeks to alleviate a major problem that limits the flow of students from public junior colleges to the private senior institutions. This move to strengthen the ties between community colleges and the private sector is especially significant due to the rapidly increasing proportion of high school graduates being channeled into local public colleges.

Individual institutions and states are making efforts to improve the financial plight of the transfer student, but the major question is whether the overall picture has changed significantly since the Willingham-Findikyan data were gathered in 1967. The survey of 43 institutions clearly indicated that financial aid officers are aware of the previously reported imbalance between aid awarded to transfers and freshmen. Some institutions would not estimate the percentage of students receiving aid; others would only state that "40 percent receive aid—both freshmen and transfers." Consequently, data gathered on this question appear questionable. On the basis of those institutions that supplied specific data, it appears that the aid gap between freshmen and transfers has narrowed somewhat; still, the disadvantage to transfers clearly remains. About two institutions in five say proportionally as many transfers are aided as freshmen.

Most institutions (two-thirds) maintain that there are no procedural problems that inhibit aid awards to transfers, but many add that applications are often late. Even if the institution doesn't have a deadline, funds are likely to be low when transfers apply. Communication seems to be an important problem. As one respondent put it, "The junior college students just aren't getting the word about how much it's going to cost and that they should apply early." Or as another said, "The cost of going away to college just doesn't seem to hit a lot of students until they get that first room and board bill."

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New federal legislation (U.S. Congress, 1972) may dramatically change the situation with respect to financial aid for transfer students—hopefully for the better. Substantial funding of Basic Opportunity Grants will provide support for far greater numbers of community college students than are now receiving aid. Will students be attracted to junior colleges by Basic Opportunity Grants and then left stranded with inadequate funds to attend higher-cost senior institutions? The legislation itself is subject to interpretation, particularly regarding transfers. Guidelines must be developed in ways that will support individual aspiration and protect the educational investment in these transfer students. Especially critical are institutional practices regarding packaging of aid, methods by which student budgets are estimated, and principles that determine amount of aid to part-time students.

The Need for Space

Space must be available in the 4-year institution for the junior college transfer for the obvious reason that he has no other place to continue his education. Colleges have frequently cited lack of space as the primary reason for not accepting a transfer applicant, but it is often not clear whether this means actual lack of physical space or simply a preference to admit more freshmen. In any event, Willingham and Findikyan (1969) estimated that at least 25,000 qualified transfer applicants were rejected in fall 1966 because of space limitations. This estimate does not include students redirected to second choice campuses, which on occasion can mount dramatically (*San Francisco Chronicle*, 1969).

The Willingham-Findikyan data indicated that most of the space rejects occurred in the large public institutions that are otherwise most open to transfers. Furthermore, there is much institutional variability both in the number of vacancies and when they are available. They point out that it is particularly important for students and counselors to familiarize themselves with the space situation at individual colleges.

In recent years very useful reports have been developed which give up-to-the-minute information on space availability at individual colleges for freshmen and transfers. WICHE (1971) produces a report on institutions in thirteen western states. The report indicates whether there are fall term vacancies as of June 1 for commuter or resident students at the freshman

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or upper-division level. The Middle States Association (1971) has published similar information for several years. The last edition of this report is revised each month—March through July.

From year to year the space problem fluctuates. Stabilizing enrollment in the early 1970s relieved the problem in many institutions, but there are always geographical areas that experience substantial imbalances between students and educational resources. Even in an affluent and educationally well-organized California, the community colleges were reported to be seeking legislation to insure space priority for transfers while many colleges across the country were working to fill dormitories (*San Francisco Chronicle*, 1972).

A fundamental question is the nature of the *state* commitment to community college students who are qualified to transfer. At issue is the right of the transfer student to enter the senior institution for which he has prepared, as opposed to guaranteed space in some public institution. Most states have not carefully examined the question of whether freshmen or transfers have priority for limited space, or how quotas are determined, or how admission procedures and timing affects the allocation of space to transfers versus freshmen.

Partly because of such problems a number of states are now actively interested in the development of upper-division colleges. It is typically believed to be more feasible and practical to create a college with no freshmen and sophomores than to eliminate the lower division of existing institutions (Smart, 1967). Altman (1970), who has produced the first book on the topic, concludes that additional upper-division institutions will be developed because this is the most reasonable alternative to meet the overall space need created by the junior college transfer.

The Association of Upper Level Colleges and Universities lists 16 upper-level institutions already in operation, with nine more in the planning stage. Texas, Florida, Illinois, Minnesota, Massachusetts, and Pennsylvania have institutions operating or under development; ten other states are considering the upper-division idea.

In addition to providing space for which transfers do not have to compete with freshmen, the upper-level institution is likely to be much easier to articulate with the junior college. In most cases planning for these institutions has stressed community service. Consequently, successful upper-division colleges

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tend to have strong relationships with local community colleges and programs biased toward career interests. Also, the innovative structure of the upper-level college tends to create a favorable atmosphere for flexible articulation policies and procedures.

While it may still be too early to test the long-range validity of this promising innovation, it is definitely having a useful catalytic effect and producing interesting ideas. Reports from Texas (Texas College and University System, 1972) and Florida (University of West Florida, 1970) are especially worth reading.

Articulation Procedures

It is apparent that the substance of articulation must cover a wide variety of problems to insure coordination in a multilevel system of higher education. It is also true that conditions are constantly changing and that communication is difficult even under ideal conditions. Consequently, effective articulation requires, to some extent, an institutionalization of the process; that is, clear, routine machinery in the form of committees, conferences, and periodic reports.

Darnes (1970b) and Knoell and Medsker (1965) give useful descriptions of this process in individual states. As noted earlier, Kintzer's work provides the most current information concerning developments across the country. His 1970 report describes articulation activities in each state (an analytic summary was prepared later (Kintzer, 1971)). His summary indicates the following numbers of states that have completed or are developing various articulation efforts (among thirty states that include 90 percent of the community colleges):

Type of Articulation Effort	Number of States
Some junior college legislation	28
Master plans for higher education	16
Plan for junior college education	25
State committee on articulation	17
Office of college relations in university or state colleges	11
Articulation guidelines	
Single senior institution	22
Statewide	14
Core curricula	5

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Articulation and the more general problem of statewide coordination of higher education are closely related, but articulation has typically developed as a special outgrowth in response to obvious need. Hurlburt (1969) notes that most state plans for junior colleges have little to say regarding transfer articulation. Kintzer (1971) groups the special articulation efforts into three broad categories.

Several states, particularly California and Michigan, have used the "articulation conference plan," characterized by negotiation and voluntary action. The "formula plan" of Florida and Illinois equates the AA degree with general education requirements of the senior colleges. The "corecurriculum plan," used on a statewide basis in Georgia and Texas, specifies areas of concentration that must be met to satisfy general education requirements.

Each of these plans has its variations and partial replicas in other states. The statewide conference is specialized as a subject conference in various states, and many individual institutions sponsor local conferences. In different areas clusters of institutions have worked out formula plans, the most notable being the 40-unit package of the California State Colleges. And a number of individual institutions have worked out detailed lists of equivalent courses with local junior colleges (e.g., Los Angeles Community Colleges, 1971; Washington State University, 1971).

The *Guidelines* suggest several types of specific activities that are useful in maintaining articulation. To complement existing information, several questions included in Table 2 emphasize the contact between individual junior and senior institutions. Items 9, 10, and 11 suggest a moderate degree of contact at best. The main danger of limited contact is the institutionalization of superficial articulation well above the working level. Real problems of individual students tend to be revealed only through personal contact or special investigation. There is very limited institutional research on transfer students (Item 12). Routine studies and routine contact need strengthening to insure that articulation does not become an abstraction that eventually fades from educational consciousness.

4 After the Guidelines

The *Guidelines* for articulation advanced by the Joint Committee (1966) are not in any sense binding on any institution. But the extent to which institutions adhere to these policies and procedures serves as a crude barometer reading of transfer admissions nationally. In order to survey practices of key institutions, 16 statements were derived which permitted a fairly straightforward decision as to whether a college does or does not follow a specific guideline.

These 16 items are grouped in Table 2 under four headings: admissions, credit, articulation and communication, and guidance and financial aid. In each instance the paragraph source in the *Guidelines* is cited. The reader must draw his own conclusions regarding individual items. Most are quotes or paraphrases of specific statements from the *Guidelines*, but several items reflect the author's judgment as to practices that represent the spirit of the recommendation.

The data in Tables 2 and 3 are based upon structured telephone interviews with admission and aid officers in the 43 institutions that participated in the Knoell-Medsker transfer study. This is not a large sample, but a 100 percent response was obtained for most items and the original sample was carefully chosen. It includes various types of institutions in ten states where 70 percent of all public 2-year students enroll. The specific institutions are listed on the following page.

At these senior institutions there were about three entering transfers for every five entering freshmen in 1971. Of the transfers, 58 percent came from public community colleges. These proportions are higher than would be expected nationally because the sample comes from states with many community colleges. The data do give some indication, however, of the

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Institutions Interviewed in Telephone Survey	
<i>Major State Universities</i>	<i>Other State Institutions</i>
University of California	Long Beach State College
Berkeley Campus	San Francisco State College
Los Angeles Campus	Florida State University
University of Florida	Northern Illinois University
University of Georgia	Southern Illinois University
University of Illinois	Kansas State University
University of Kansas	University of Michigan:
University of Michigan	Dearborn Campus
Pennsylvania State University	Flint Campus
University of Texas	Michigan State University
University of Washington	Wayne State University
<i>Teachers Colleges</i>	Texas Technological University
Georgia Southern College	Washington State University
Kansas State College of Pittsburgh	
Kansas State Teachers Colleges	
of Emporia	
Central Michigan University	<i>Private Universities</i>
Eastern Michigan University	University of Southern California
Western Michigan University	University of the Pacific
State University of New York:	University of Miami
College at New Paltz	Emory University
College at Oswego	Loyola University (Illinois)
Sam Houston State University	Roosevelt University
Western Washington State College	New York University
	Seattle University
	<i>Technical Institutions</i>
	Georgia Institute of Technology
	Rochester Institute of Technology
	Texas A&M University

admission structure that can be expected as more states emphasize lower-division enrollment in junior colleges.

Table 2 shows the percentage of institutions that adhere to the specific guidelines discussed in the telephone survey. Percent of yes-responses varies among items, and there is some tendency for greater adherence to policy items (e.g., 3, 7, 8, 16) than to items that require doing something (e.g., 4, 9, 12, 14). Some guidelines like 5 and 6 are relatively simple, innocuous, and beneficial to the student. Failure of many colleges to accept such recommendations has no ready explanation save academic inertia.

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Table 2. Percentage of 4-Year Institutions Adhering to Selected Articulation Guidelines*

Admissions

- | | |
|--|-----|
| 1. Transfers are typically admitted by the beginning of their last term in the junior college. (I.4c) | 35% |
| 2. If space for transfers who have completed 2 years of junior college is limited, priority goes to applicants with the highest probability of success. (I.1b) | 37% |
| 3. Transfer applicants from new colleges within the state are admitted on the same bases as those from accredited institutions. (I.5) | 63% |
| 4. Each year community colleges are provided information on the performance of their former students. (I.1c) | 49% |

Credit

- | | |
|---|-----|
| 5. Transfer students have the option of satisfying graduation requirements in effect at the time they entered the community college as freshmen. (III.1a) | 55% |
| 6. Satisfactory completion of an associate degree transfer program guarantees upper division standing at the time of transfer. (II.1c) | 51% |
| 7. Credit granted on the basis of CLEP scores is transferable. (II.4c) | 63% |
| 8. D grades earned by transfer students are evaluated on the same basis as grades earned by native students. (II.3) | 83% |

Articulation and Communication

- | | |
|---|-----|
| 9. The admission staff visits the primary feeder junior colleges at least twice each year. (V.5d, 6a, 7a) | 42% |
| 10. Personnel from the primary feeder colleges visit the campus at least once a year to talk with former students. (V.6b) | 35% |
| 11. There is an annual joint review of what courses are accepted in satisfaction of specific requirements, and agreements are communicated in writing to advisors, counselors, faculty, etc. (III.5a, 5c) | 50% |
| 12. The institution has done formal studies of transfer students during the past year (other than reporting grades to junior colleges). (V.7c) | 42% |

Guidance and Financial Aid

- | | |
|---|-----|
| 13. Junior college personnel meet regularly on the campus to discuss services available to students after transfer (financial aid, guidance, remedial programs, etc.) (IV.1f) | 60% |
| 14. Special materials and procedures have been developed for the orientation of transfers (separate from freshmen). (IV.3) | 42% |
| 15. Proportionately, as many transfer students as freshmen receive financial aid. (IV.4) | 42% |
| 16. Application procedures, deadlines, or qualifications do not make it more difficult for transfers to receive aid. (IV.4) | 66% |

*Based upon 43 institutions that participated in the Knoell-Medsker study.

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On the average these 43 institutions follow about half of the guidelines listed here. But as Table 3 indicates, there is considerable institutional variability. Within particular types of institutions, some colleges adhere to most of these guidelines and others adhere to very few. This variability is frequently found even among public institutions within the same state. Furthermore, there is little apparent connection between the number of transfers an institution admits and the extent to which it follows these guidelines.

Table 3. *Percent of Selected Guidelines Followed by Each of 43 Institutions Sorted by Type.*

Type of Institution	Percent of Guidelines Followed			
	0-24%	25-49%	50-74%	75-100%
Major State Universities		4	5	3
Teachers Colleges		3	5	4
Other State Institutions		5	2	1
Private/Technical Institutions	3	3	5	
All Institutions	3	15	17	8

These various facts suggest that some guidelines are ignored by many institutions and some institutions have a limited commitment to improve transfer articulation. Obviously, most colleges cooperate as best they can, but there is little evidence of widespread conformity to the guidelines as stated. When asked what changes or trends they expected, most respondents foresaw little change. The changes that were mentioned typically showed a movement toward more flexible policies; i.e., state agreement on acceptance of credit based upon scores of College Level Examination Program; lowering the minimum grade-point average for admission from 2.4 to 2.0; more flexible degree requirements, etc.

5 Summary and Conclusions

There are three main reasons why the movement of students from junior to senior colleges rivals freshman admissions as the second most important problem in access to higher education. One is its critical relationship to the organization of higher education. Smooth transfer from 2- to 4-year institutions is a basic requirement of the hierarchical model in which community colleges serve to expand educational opportunity. A second reason is the growing magnitude of transfer admissions. Rough estimates indicate that one transfer student enters a senior institution for every three freshmen; of these transfers, over half come from 2-year institutions. A third reason is the fact that transfer admissions includes a number of unique problems, quite different from freshman admissions.

These problems include questions about curriculum articulation, guidance, orientation, admission procedures, academic standards, credit, access/retention, space, financial aid, and articulation procedures. The primary purpose of this report was to review literature concerning research and developments pertaining to these various problem areas. The literature review was supplemented by telephone interviews with admissions officers in each of the 43 senior institutions included in the Knoell-Medsker transfer study in the early 1960s.

Curriculum Articulation

One basic problem in curriculum articulation is the fact that students from one junior college fan out to several senior institutions that may have different graduation requirements for the same degree, and the student may not be able to anticipate

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the college to which he will transfer. Another fundamental problem is the fact that the junior college answers to two masters: its own unique educational commitment and its responsibility to prepare transfer students. The former requires innovation and flexibility; the latter demands close adherence to an educational plan.

When pairs of institutions agree on parallel courses, educational continuity is greatly improved; but this does not solve the problem of students transferring to diverse senior colleges, nor does it encourage curricular flexibility at the junior college. Blanket statewide or regional agreements to accept the associate degree in recognition of general education requirements helps to solve both problems in the short run, but can lead to the educational discontinuity that now characterizes secondary and higher education. Students need to be protected against trivial differences in requirements among institutions, but not at the expense of continuity in instruction or preparation for a career.

While it is important to achieve middle-ground solutions, there is virtually no theory of curriculum articulation to guide such development. Sound curriculum planning would profit from better understanding of general principles concerning such matters as: the types of agreements that constitute good articulation, the forms of standardization that are necessary, the forms of flexibility that are desirable, the discipline continuity that is required, the instructional continuity that is beneficial, and the upper-division extensions of career education that are needed.

Guidance at the Community College

Adequate counseling of students prior to transfer remains a serious problem hampered by inadequate information at the junior college. Important problems that students encounter in transferring seem traceable to their not being informed early about admission and financial aid procedures. Junior colleges could devote more attention to advising transfers and following their progress. Senior institutions need to become more engaged in this process, particularly by supplying systematic information to junior colleges. Guidance of transfer students would benefit markedly from the development and adoption of a practical guide specifying information and procedures that should be incorporated in an effective transfer guidance program.

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Orientation at the Senior College

There is widespread agreement that efforts to orient the transfer student to the 4-year college are often inadequate and ineffective. Single orientation programs for transfers and freshmen are still common and still criticized, but separate transfer orientation is not felt to be a sufficient answer. The clearest need is for comprehensive descriptive materials designed specifically for transfers. An AACRAO committee makes the reasonable suggestion of putting the transfer orientation problem in the hands of student-faculty committees on individual campuses.

Diverse Admission Procedures

Admission practices vary a great deal among institutions. This variation is important for students to understand because it often reflects basically different conditions for student transfer. In only a few states are condensed summaries of institutional transfer policies and practices readily available to students. This lack of adequate advance information is compounded by the fact that junior college students tend to apply for transfer admission later than do freshmen. Late application often makes it difficult for students to obtain financial aid and attend to personal and academic details of transition that had not been anticipated. Rolling admissions without deadlines seems very well suited for transfers, but junior colleges should encourage students to initiate their applications prior to the last term in the junior college.

Diverse Academic Standards

A drop in students' grades after transfer seems largely due to a grade differential typically found between 2- and 4-year colleges. This differential varies widely among pairs of colleges as does the transfer attrition rate. Because of these persistent variations between and within institutions, it is especially important to collect data on student performance so that admission requirements are fair and students can be counseled toward colleges and programs in which they are likely to succeed. At present too few 4-year institutions provide student performance data to junior college advisors.

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Credit—The Persistent Question

The matter of transferable credit always raises a variety of specialized questions. Most senior institutions now accept D grades, and credit policies are generally liberalized. But as institutions move to generous credit allowances and acceptance of formula plans, the critical question becomes not how much credit is awarded but how many courses are required for graduation. There is very little information on this question. On a related issue, junior colleges have been slow to grant credit by examination even though most senior institutions accept such credit. Four-year colleges have been slow to adopt policies regarding new grading practices or to offer grandfather rights to transfers who have been following BA graduation requirements in effect during their stay in junior colleges. Senior institutions have also been slow to develop innovative curricula for junior college graduates, but there are now innovative moves in several states to create 2-year BA programs on top of community college technical degrees.

Access/Retention—The Salient Problem

There is amazingly little data on what proportions and what sorts of students transfer from junior to senior colleges, even though such information is critical in evaluating the operation of higher education systems. There is also no statewide data on holding power to the BA degree, though considerable institutional data indicates that attrition of transfer students is sometimes quite high at individual colleges. It appears likely that minorities are underrepresented among transfers but almost no information is available. *Reverse transfer* is another major uncharted aspect of student flow. In the only state from which data are available, more students transfer from 4- to 2-year colleges than vice versa. There have evidently been no published investigations of reverse transfer despite its substantial implications for articulation and statewide planning.

The Need for Aid

Inadequate financial aid for transfer students continues to be one of the most serious problems in transfer articulation.

SUMMARY AND CONCLUSIONS/47

In a selected sample of senior institutions only two in five report that proportionately as many transfers as freshmen receive financial aid. Communication now appears to be a principal problem. Many institutions report that junior college students are not getting the word that senior college is more expensive than they imagine, that aid is available, and that applications should be filed early.

The Need for Space

In the early 1970s, space ceased to be the acute problem it was 5 years earlier. Enrollments became stabilized in senior institutions and, in some areas at least, rapid means were developed to inform students concerning which institutions have space for transfers. But in all periods there seems to be the continuing threat of localized inadequate space for expanding cadres of transfer students. One response that has gained considerable attention and favor is the development of upper-division institutions that admit only transfers. Twenty-five such institutions are now operating or planned in six states.

Articulation Procedures

There is wide variation from state to state in the procedures that have been established to develop and maintain articulation. These procedures have tended to develop on an ad hoc basis; they are not yet routinized in many states, though there is evidence of steady progress. Institutional studies and personal contact between 2- and 4-year institutions seem especially important in order to illuminate the articulation problems that individual students face. Both personal contact and research appear limited at most institutions.

This review of the literature of student transfer from junior to senior institutions suggests two general conclusions—one positive and one negative. On the positive side, it is evident from the Knoell-Medsker research that the junior college is successfully training large numbers of transfer students. The students themselves typically judge their junior college programs to be quite good and, in some respects, better than those of the 4-year institutions. These students are gaining admission and succeeding in increasing numbers. The basic problems of professional standards and institutional integrity have been

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faced and largely solved to the advantage of all concerned. There are ample signs of increasing flexibility and cooperation between community colleges and 4-year institutions. Everything considered, the future of transfer articulation can only be described as optimistic.

On the negative side, the future is taking a long time to get here and important transfer problems are too often ignored. Consider some of the problems that have been researched exhaustively with respect to incoming freshmen: access rates, student aspirations, financial aid, minority representation. There is virtually no research on corresponding problems with respect to transfer students, even though nearly one million students enter community colleges each year, two-thirds of whom intend to transfer. Furthermore, the degree of adherence by many institutions to the recommended guidelines (about 50 percent on the average; see Table 2, page 41) is indifferent at best. Transfer articulation is indeed the Number 2 access problem—second only to freshman admissions in importance, and definitely second-rate in the attention it receives from educators, researchers, and policymakers.

Additional state and local initiatives seem to be necessary in order to give transfer articulation the attention it requires. The leadership expressed in the work of various state agencies and individual institutions should be generalized and broadened in ways that will alleviate existing problems in all areas and institutions having substantial movement of transfer students. Those states without an appropriate voluntary or legislated agency to monitor articulation should create one. In particular such agencies should:

- Develop procedural and substantive principles of curriculum articulation to serve as a basis for the establishment and maintenance of agreements that encourage curriculum flexibility and preserve educational continuity.
- Undertake flow studies of access and retention that can serve as one basis for evaluating the operation of the state system of higher education.
- Examine the reciprocal relationship between 2- and 4-year institutions, particularly as it is reflected in reverse transfer of students to the community college.
- Facilitate improved information exchange between junior and senior institutions, particularly that relating to articulation agreements, institutional practices, and research results.

SUMMARY AND CONCLUSIONS/49

- Evaluate and selectively promote innovative practices that have a beneficial effect upon transfer articulation.

Many individuals at institutions are actively involved with various aspects of transfer articulation as a frequent or exclusive responsibility. There is, however, sufficient evidence to suggest the need for a focused responsibility on each campus to maintain a broad overview of transfer articulation in the student's behalf. This need might well be filled by a standing faculty committee at each institution that receives or sends a substantial number of transfer students. The existence of highly organized articulation machinery at the state level increases rather than lessens the need for such local representation. Such a committee might:

- Systematically evaluate local policies and practices in relation to the *Guidelines of the Joint Committee*.
- Periodically review research and developments in the field, starting with such literature as cited in this report.
- Initiate studies of transfer students, particularly investigations of performance, retention, and educational experiences and plans.
- Periodically review practices in critical areas such as admissions, financial aid, and guidance.
- Suggest and facilitate the development of improved programs; e.g., orientation, articulation procedures, relations with junior colleges.

Finally, there are broader problems that still await attention from federal agencies and national organizations. More adequate statistics must be gathered routinely on the admission of transfer students into senior institutions. Representation of minority youth is one critical aspect of this problem that requires special attention. Appropriate national groups should describe models of exemplary institutional practice in such areas as guidance at the junior college and equitable administration of aid in the senior college. Transfer from 2- to 4-year institutions has been developed systematically into a primary mechanism for enhancing educational opportunity. Educational leaders have a special responsibility to see that the mechanism is working.

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